

ABSTRACT OF THE DISCLOSURE

[0057] Systems and methods for detecting a respiration signal in a target area are disclosed. Briefly described, in architecture, one embodiment of the system, among others, can be implemented as follows. The system includes a scanning antenna configured to transmit a microwave signal across a horizontal axis in the target area. Also, the system includes a control system that tracks the position of the scanning antenna along the horizontal axis. A signal processing system then detects a respiration signal of a living subject in the target area from reflected microwave signals from the target area and the positional data. Other systems and methods are also provided.